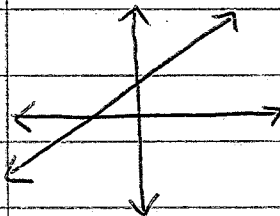


4.4 The Slope of a Line

$$\text{slope} = m = \frac{\text{rise}}{\text{run}} = \frac{\text{change in } y}{\text{change in } x} = \frac{y_2 - y_1}{x_2 - x_1}$$

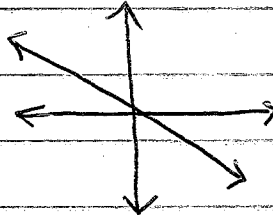
$m > 0$

rises



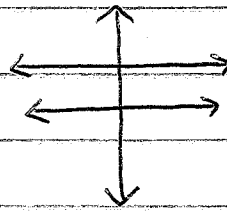
$m < 0$

falls



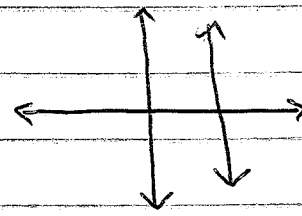
$m = 0$

horizontal

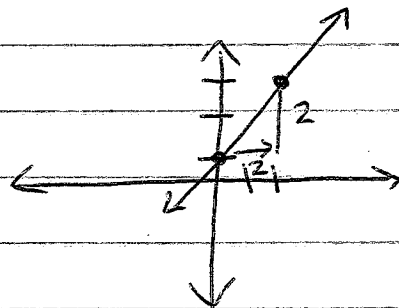


m is undefined

vertical



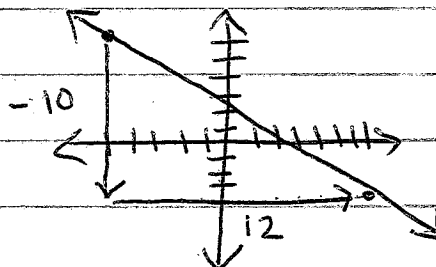
Ex 1



$(0, 1) \text{ and } (2, 3)$

$$m = \frac{2}{2} = \boxed{1}$$

Ex 2



$(-5, 6) \text{ and } (7, -4)$

$$m = \frac{-10}{12} = \boxed{-\frac{5}{6}}$$

Homework: p. 230 #20-34 all